

1. (previously presented) A system for inductance testing a plurality of planar magnetic circuits, comprising:

a substrate;

a plurality of cores spaced and electrically isolated from one another and mounted on said substrate, wherein each one of said plurality of cores registers with a corresponding one of said plurality of planar magnetic circuits;

a carriage moveable on one or more axes with respect to said plurality of planar magnetic circuits;

a pair of leads, wherein said leads are mounted to said carriage;

a controller, which coordinates the actions of said carriage and said leads so as to implement testing;

wherein said controller selects one of said plurality of planar magnetic circuits and contacts said pair of leads with said selected planar magnetic circuit and delivers an electrical current through said selected planar magnetic circuit while the corresponding registered core enhances inductance in said selected planar magnetic circuit;

wherein, after said selected planar magnetic circuit is tested, said controller positions the leads so that another planar magnetic circuit may be tested; and

an inductance measuring tool.

2. (original) A system according to claim 1, further comprising a plurality of beds in said substrate for registering said plurality of planar magnetic circuits with said plurality of cores.

3-8. (canceled)

9. (previously presented) A method for inductance testing a board having a planar magnetic circuit and a pair of contacts, comprising the steps of:

providing a substrate having an electrically isolated core and bed;

loading said board on said bed to register said planar magnetic circuit with said core;

providing a pair of leads and a plate;

contacting said pair of leads with said pair of contacts and said plate with said core using a controller;

delivering an electrical current through said planar magnetic circuit while said plate and said core enhance inductance in said planar magnetic circuit;
measuring inductance in said planar magnetic circuit; and
determining whether said inductance is in a predetermined range, and
marking said board if said inductance is not in said predetermined range.

10. (canceled)

11. (original) A method according to claim 9, further comprising:
analyzing said board to identify a defect if said inductance is not in said predetermined range;
and improving a design of said board to overcome said defect.

12-19. (canceled)

20. (previously presented) A method according to claim 9 wherein said marking step is accomplished by drilling said board to prevent use of said board and to provide a visible indicator of the non-functional condition of the board.

21. (new) A method for inductance testing a board having a planar magnetic circuit and a pair of contacts, comprising the steps of:

registering said planar magnetic circuit with an electrically isolated core;
providing a plate complementary to said core;
contacting said plate with said core;
providing a pair of leads;
positioning said pair of leads into contact with said pair of contacts using actuation and control;
delivering an electrical current through said planar magnetic circuit while said plate and said core enhance inductance in said planar magnetic circuit;
measuring said inductance in said planar magnetic circuit; and
determining whether said inductance is in a predetermined range.

22. (new) The method of claim 21, further comprising the step of approving said board if said inductance is in said predetermined range.

23. (new) A method according to claim 22 wherein said approved board is further processed, used or sold.

24. (new) The method of claim 21, further comprising the step of disapproving said board if said inductance is not in a predetermined range.

25. (new) The method of claim 24 further comprising the step of marking said disapproved board.

26. (new) A method according to claim 25 wherein said marking step is accomplished by drilling said board to prevent use of said board and to provide a visible indicator of the non-functional condition of said board.

27. (new) The method according to claim 21 wherein said actuation is accomplished using at least one motor.

28. (new) The method according to claim 21 wherein said steps are repeated to test a plurality of boards.

29. (new) A method for inductance testing a plurality of boards, each of said boards having a planar magnetic circuit and a pair of contacts, comprising the steps of:

- (a) providing a substrate having a plurality of electrically isolated cores and beds;
- (b) loading said boards on said beds;
- (c) registering said planar magnetic circuits with said cores;
- (d) providing a pair of leads and a plate, wherein said leads and said plate are mounted on a carriage;
- (e) positioning said carriage in the proximity of a selected one of said boards using actuation and control;

(f) contacting said pair of leads with said pair of contacts of said selected board using actuation and control;

(g) contacting said plate with said core registered with said selected board using actuation and control;

(h) delivering an electrical current through said planar magnetic circuit of said selected board while said plate and said core enhance inductance in said planar magnetic circuit of said selected board;

(i) measuring said inductance in said planar magnetic circuit of said selected board;

(j) repeating steps (d) through (h) for each remaining one of said boards, until all of said boards have been tested.

30. (new) The method of claim 29, further comprising the step of approving said boards having an inductance in a predetermined range.

31. (new) A method according to claim 30 wherein said approved boards are further processed, used or sold.

32. (new) The method of claim 29, further comprising the step of disapproving said boards not having an inductance in a predetermined range.

33. (new) A method according to claim 32 further comprising marking said disapproved boards.

34. (new) A method according to claim 33 wherein said marking step is accomplished by drilling said disapproved boards to prevent use of said disapproved boards and to provide a visible indicator of the non-functional condition of said disapproved boards.

35. (new) The method according to claim 29 wherein said actuation is accomplished using at least one motor.